Q1: Do you agree with our approach to assessing the impacts of P272?

We agree with the approach in assessing costs and benefits against a baseline. We also recognise Ofgem's attempt at a reasoned, evidence-based approach. However, we do not feel that the impact assessment illustrates a clear, tangible benefit to customers. We appreciate Ofgem's illustration of where their analysis differs from that of the original BSC workgroup's, however we reiterate the BSC Panel's unanimous in recommending P272 be rejected as we still the costs are significant and the remain benefits uncertain. Furthermore we feel that Ofgem's cost-benefit analysis has not quantified key significant costs, while quantifying benefits in an overly-optimistic manner.

In summary, we agree with the principle of Ofgem's approach. However there are a number of aspects within the approach we take issue with:

- We disagree with the assumption that appropriate DUoS HH tariffs will be in place by April 2015. Given current progress, this is highly unlikely. Therefore if P272 is approved many customers will see an increase in their DUoS costs. On the basis of current progress, it is extremely unlikely the DUoS tariff changes will have been through due process by April 2015. We question how Ofgem can make a decision in February 2014 when these developments will still be ongoing. We would also point out that it will be necessary for appropriate DUoS tariffs to be in place much sooner than April 2015 to allow Suppliers to meet the 1st April 2015 completion date.
- We question the validity of the counterfactual's use as a baseline, as the energy market is especially dynamic and undergoing a multitude of changes over the modelling period. Although we agree with the approach to the impact assessment in principle, the practical considerations of defining and quantifying *'a counterfactual that holds other things constant' (I.A., 2013, para. 3.6, pg. 12)* make this an inherently subjective process. For example, the assumption of continued low levels of elective HH take-up – we suggest the appropriate market conditions and competitive forces would address the current low levels of HH settlement.
- We disagree with the counterfactual's assumption of continuing low levels of elective HH take-up. As it stands, we believe the existing DUoS tariffs are a key barrier to elective HH settlement. P272 mandating HH settlement for Profile Classes 5-8 does not address this DUoS issue. Although we note Ofgem will bear this in mind when making their decision, they have stated it will be made by 14th February 2014. We question how Ofgem can make a decision on this date when there will still be significant uncertainty around the HH DUoS tariff progress. There is a major risk of a disbenefit to customers if P272 is approved before the appropriate DUoS environment is guaranteed. On this basis alone, we suggest Ofgem's minded-to position should be to reject P272 in the interests of customers. We stress we agree with the principles and purposes of P272, but there are more complex factors at play preventing effective, competitive HH settlement.
- We question Ofgem's use of narrow ranges within their modelling for highly uncertain factors. For example we feel the ranges used for load shifting, and reduction through demand side response, are extremely optimistic. We stress that many consumers in Profile Classes 5-8 will be disengaged with the market or unable to shift or reduce their demand due to business constraints. We commissioned our own survey of SME consumers (not all of whom are current npower customers) – 63% of respondents were reluctant to alter their

consumption patterns, and 50% were unwilling or unable to radically change how and when they use energy (*Verve SME Insight Group, 2013*). We suggest that P272 will likely disbenefit a significant proportion of customers with relatively inelastic demand. Furthermore, removing the element of consumer choice regarding HH settlement seems counter-intuitive to Ofgem's focus on benefitting the consumer.

- We disagree with Ofgem modelling the peak at 16:30-19:00, as our examination of three years of National Demand Data shows the peak occurs at lunchtime (around periods 24 and 25) around one third of the time. Overall, load reduction from lunchtime peak seems unlikely. We question why the model does not account for this, as it is a misrepresentative assumption. Additionally, we feel assuming an average 2.5% load reduction from peak is extremely optimistic and unlikely (*I.A., 2013, para. 1.23, appdx 3*). Although we recognise this figure was derived from the available literature, we stress this field of study is still in its infancy. Thus we feel the benefits through DSR have been over-stated, and the table in our answer to Question 4 illustrates the significant influence of slight changes in projected DSR benefits on the modelled NPV.
- We question why Ofgem have chosen not to quantify what we feel are key costs within the cost-benefit analysis. Implementing P272 may have significant cost implications regarding contracts that have already been negotiated, and to exclude these along with the CRC appears an inconsistent approach – particularly when other equally uncertain benefits have been quantified. For example the range used for load reduction has no quoted source, and is highly uncertain (*I.A., 2013, para. 1.30, appdx 3*). We feel Ofgem's approach is inconsistent, and influences the model towards producing a neutral or positive NPV. We note that the average NPV benefits case of £0.4m would be wiped out by a 0.5% increase in ongoing supplier costs. In essence, we disagree that the cost-benefit analysis represents a fully-informed and fair model. We reiterate the original comments of the BSC workgroup: that the costs of P272 are significant and the benefits uncertain at this current time.
- Although we support the principle and intention of P272, we disagree that mandatory implementation is the optimal solution. We do not feel the £0.4m average NPV benefit, across the industry, over a 20-year modelling period is a justification for illustrating the benefits of P272. Mandating HH settlement contradicts the important concept of consumer choice. Therefore we question Ofgem's current minded-to position. Furthermore, small adjustments to the modelling inputs and assumptions would skew the NPV negatively, and may actually be to the detriment of customers (see Q4).

Q2: Are there any additional, material impacts that we should consider?

Yes. We feel significant cost impacts have been overlooked. As a result, we challenge the cost-benefit argument for implementing P272. We note that the previous BSC workgroup's cost-benefit analysis illustrated that the costs outweighed benefits. Although we respect Ofgem's academic approach, we question why potentially significant costs have not been quantified (eg. CRC and NHH agent contract termination), while other highly uncertain benefits have been quantified with no justifiable source (e.g. load reduction from peak).

Given the relatively low average NPV benefit the model produces, including other costs would produce an average negative NPV – therefore a disbenefit to consumers and the industry. Additionally, the Monte-Carlo modelling analysis used is extremely sensitive to input values. The optimistic assumptions around DSR take-up are, in our view, highly unlikely. Although we recognise these were derived from the available literature, we question their application – particularly considering potential inelasticity of demand for customers in Profile Classes 5-8. We commissioned our own research, which illustrated 63% of SMEs surveyed had relatively inelastic demand (*Verve SME Insight Group, 2013*). Ultimately, we feel significant costs and uncertainties have been neglected. The economic justification for mandating P272, being broadly revenue neutral, is the result of a flawed cost-benefit analysis.

Specific additional material impacts to be considered:

- The costs of terminating agents are likely to be significant. Although we appreciate the workgroup's difficulties in ascertaining the materiality of these costs, omitting them represents, we feel, a major oversight. We note the invitation to submit supplier agent costs (*I.A., 2013, para. 6.3, pg. 32*), but suggest this is somewhat of an over-simplification. Customers can appoint their own agents, which we have no view of as a supplier. The cost of terminating contracts with individually-appointed agents will potentially be significant and would only be known to the individual customer. We emphasise that, where these arrangements exist, customers themselves will incur significant costs if P272 is approved. We suggest a phased implementation at the point of contract renewals could mitigate this impact.
- Carbon Reduction Commitment costs. We question why these have been omitted, as P272 potentially increases the number of businesses qualifying under the CRC. Although we acknowledge difficulties in forecasting these numbers, we do not feel their exclusion is satisfactory. We note Ofgem's justification: *'this is an unintended consequence of the qualification rules and hence is not included in our impact assessment'* (*I.A., 2013, para. 6.3, pg. 32)*. We question the validity of this statement, as it is nonetheless an impact resulting from implementing P272. Essentially, CRC costs are a potentially large impact that should be considered. The justification for their exclusion is not satisfactory.
- Disparities are inevitable between suppliers' costs in implementing P272. Nonetheless, we do not feel £25m at NPV over the implementation period is an accurate reflection of the true average implementation cost. We believe suppliers' implementation costs will, on average, be higher and ultimately these will be passed onto the consumer, or suppliers would be forced to absorb them which would impact smaller suppliers significantly.
- Distribution and transmission cost savings are intrinsically linked to DSR take-up in the model. We believe Ofgem's assumptions around DSR are overly optimistic. Therefore we feel that distribution and transmission cost savings calculated over

the modelling period are likely to be lower than accounted for. We reiterate the model's sensitivity to load shifting assumptions, and we feel the ranges do not accurately reflect the market. *For example, reducing the model's lower range for DSR take-up from 20% to 18% gave an average NPV of -£2.76m* (see Q4). Furthermore we emphasise that SMEs and micro-businesses are relatively disengaged with the market and that energy is a low-priority cost for many businesses (*Ofgem RMR I.A., 2013*).

- We consider that although settlement accuracy may improve, there may be a greater cost risk around HH settlement of Profile Classes 5-8s as their consumption potentially represents a greater risk to suppliers' imbalance. The current NHH profiling arrangements spread this risk across the industry. Although we recognise fair allocation of costs is a key tenet of the BSC, we emphasise that the BSC workgroup nonetheless unanimously rejected P272. We also stress that P272 is potentially contradictory to Ofgem's aims to benefit customers and increase competition. Without appropriate DUoS tariffs in place many customers mandated into HH settlement through P272 will see their bills increase. Additionally, it may reduce competition in the market by disadvantaging smaller suppliers, particularly those focused on the SME NHH market, by increasing their imbalance exposure from the uncertain behaviour of their customers. This could inadvertently reduce the amount of suppliers within the market – reducing competition.
- Potential decreases in forecasting accuracy, especially in the short- to medium-term should be considered. We note that the model does not account for a potential decrease in forecasting accuracy.
- There will be potential increases in Elexon costs for conducting Technical Assurance visits. Although the sample size is only 1%, the number of visits will increase accordingly. In addition HHMO costs will increase as they are required to be on site for each visit. Additionally, suppliers' administrative costs may increase to support the activity.
- HH settlement under P272 would require CoP5 or CoP10 compliant meters. Advanced meters can support P272 but Smart meters cannot under the current arrangements. Thus, were P272 approved, there needs to be a consideration around whether Smart meters are upgraded for the HH consumption measurement within the meter to meet MID standards. Alternatively a new metering CoP could be implemented, and MID standards relaxed to certify the current Smart meters with HH settlement functionality. Whichever solution came to fruition, there is a clash in licensing conditions here. There are also clear implications to the industry around additional complexity and cost. We suggest that these issues could be negated were Advanced meters allowed to endure. Although overlap in this respect may be rare, it is nonetheless a material consideration that has been overlooked.
- Further to the above, as a general observation, the angle missing is the one for customers. The market is demanding these arrangements to access products to help customers manage energy use and spend. It is unlikely customers would appreciate a compulsory meter change that subsequently forces suppliers to break contract with the customer and deny them the product. It would be a backward step for business customers.
- In particular two major supplier costs have not been included. We feel they should be.
    - Existing contracts with customers will have been fixed for long periods into the future. Mandatory changes through P272 will incur significant costs to be borne by suppliers or the customer. These impacts appear to have been overlooked in the cost-benefit analysis. We propose P272 is unsuitable due to the immediate deadline for implementation, and suggest

rejecting it in this regard. We would be supportive of an alternative Modification focussed on phased implementation for contracts signed or renewed after a specified date.

  - Pricing and forecasting certainty will be significantly affected in the short- to medium-term by P272. Where in existing contracts, customers will have been priced based on previous industry conditions. Further to the above point around contractual periods, the changes represent an impact that has not been accounted for in the cost-benefit analysis. Dependent on how suppliers choose to deal with the above issues, there are material impacts on consumer trust and consumer pricing certainty that should be considered further by Ofgem.

- We question whether the Change of Measurement Class (CoMC) process is robust enough to handle the volume of customers given the completion date of April 2015. It is unlikely that an April 2015 deadline could be met through use of the existing CoMC arrangements. Were they to require upgrading, this represents a cost to the industry that should be borne in mind along with the timescales required to develop and implement the relevant changes under the BSC.

Although we recognise Ofgem's remit encompasses the interests of consumers, we challenge their minded-to position on two points. Firstly, we feel significant cost impacts have been overlooked in the cost-benefit modelling and analysis. Secondly, mandating HH settlement removes customer choice – and thus Ofgem's minded-to position, justified in the consumer's interest, appears counter-intuitive. We reiterate that we support the principle of P272. However currently the key barrier to elective HH settlement is the absence of appropriate DUoS tariffs – meaning customers pay more for HH settlement. On the basis of current progress, we feel the appropriate DUoS tariffs will not be developed and implemented in time to allow suppliers to complete the transfer of customers by April 2015. On this basis alone P272 should be rejected as it will mandate an increase in many customers' energy costs or place pressure on suppliers (small and large) to absorb these costs. Finally, Ofgem should consider the significant impacts on consumer engagement and trust this could have.

Q3: Do you agree that P272 would drive suppliers to encourage DSR among their customers?

No. P272 alone will not influence price signals to drive DSR offerings, nor uptake. There are a myriad of factors involved. Customer uptake depends strongly upon price signals and customers' willingness and ability to shift load. Npower commissioned a study around SME flexibility regarding DSR. Around half of respondents were unwilling to radically alter the way they use energy and we emphasise that many businesses are unable to alter their demand due to operational requirements (Verve SME Insight Group, 2013). Suppliers will encourage DSR among customers if they can stimulate demand for the service and monetise benefits for both parties. The belief that P272 itself will drive DSR offerings and uptake is, we feel, an over-simplification of an inherently complex issue.

Npower is supportive of HH settlement as a facilitator of DSR – however it is but one factor amongst many. We feel it is premature to mandate change without knowing the benefits it will bring. Essentially, although a market for DSR exists, we feel the modelled impacts of P272 have overstated the market's size (customer take-up), which has significant effects on the results of the cost-benefit analysis. In particular we feel the range used for DSR take-up (20-24%) is overly-narrow. We note that a 1% adjustment of the range downwards (19-23%) gives a negative NPV of -£2.59m (see Q4). We consider that, although P272 may play a part in driving suppliers' DSR offerings, there are much greater and more complex factors at play.

- Customer take-up of DSR is a function of how attractive the proposition is for them. Price signals (benefits) will be the key determinant of whether consumers choose to exercise load shifting or reduction. Additionally, there is also a clear trade-off between increased HH DUoS costs against any DSR benefits realised. As it stands we feel P272 will not impact these price signals, thus benefits to the customer will be unclear. Assuming clear price signals, we nonetheless emphasise that '*energy is a low priority cost for many businesses*' *(Ofgem RMR I.A., 2013, para. 2.47, pg. 21*).In the survey we commissioned, 63% of consumers were unwilling to shift their demand significantly due to operational requirements. Additionally, energy comprised less than 10% of total costs for the majority of respondents and, although there was interest in DSR, it is not suitable for every consumer (*Verve SME Insight Group, 2013*). In particular, this leads us to question the mandatory element of P272 – as the model shows it is more likely to disbenefit customers. Ofgem's analysis shows in less than 50% of cases the model produces a negative NPV. Although we note that where a positive NPV is returned the benefit is greater, we question how Ofgem can support a modification which their own analysis shows is more likely to disbenefit customers than to benefit them *(I.A., 2013, para. 7.5, pg. 39)*.

- Importantly the above point brings us back to the HH DUoS tariffs, which are very unlikely to be developed and implemented in time to allow suppliers to complete the transfer of customers to HH by April 2015. There is a very real chance of consumers suffering cost increases if P272 is approved before the DUoS developments are complete. We reiterate that although we support the principle of P272, mandatory implementation by 1st April 2015 will very likely disadvantage a large number of consumers – particularly due to the ongoing DUoS tariff developments and the time suppliers will need to physically transfer customers from NHH to HH settlement.
- P272 will have little impact on price signals. The industry is only now conducting DSR trials and the impact on customers is unknown. In fact, the developing UK

electricity market structure in the mid-term effectively disincentivises DSR in relation to other available options to match supply with demand. A key factor in the value of DSR to customers is the differential between baseload and peak electricity prices. We feel there is little sign of significant baseload-peak spreads developing in the near term, due to oversupply in the generation and reserve market. This negates the projected DSR benefits for suppliers and consumers. In the longer term, DECC has structured the EMR to meet additional capacity at all times through the Capacity Mechanism. According to DECC's analysis the Capacity Mechanism is expected to reduce peaking prices. Structurally, the market is not driving the major price signals for customers to create a surge of demand for DSR services. While P272 may improve the efficiency of industry processes, it does not address the other key drivers required. We do not feel P272 will drive DSR uptake as optimistically as modelled, and furthermore the market is not efficiently structured towards facilitating it.

- Assuming clear price signals, customers in Profile Classes 5-8 will include SMEs, and our survey shows their demand to be relatively inelastic – due to opening hours etc. (*Verve SME Insight Group, 2013*). We emphasise our feeling that the modelling ranges used for DSR are narrow and optimistic in forecasting an average 2.5% demand reduction from peak (*I.A., 2013, para. 1.23, appdx 3*). Small adjustments to the modelled ranges produce an average negative NPV – where costs outweigh benefits (see Q4). Our experience is that DSR is not wholly embraced by existing HH metered customers at present, and although we recognise Ofgem's assumption of increasing DSR uptake, we feel the reality may be somewhat different due to the characteristics of some consumers in Profile Classes 5-8. To function efficiently DSR offerings must be transparent, with clear benefits outweighing other costs. SMEs are especially concerned with budget certainty – but the structuring of HH DUoS tariffs and DSR products will actually increase budget uncertainty for these consumers. Furthermore, engagement in DSR strongly correlates with businesses' overall proportion of spend on energy *(Ofgem RMR I.A., 2013*. We question whether the demand for DSR will be as large as assumed. Generally we feel Ofgem are overly optimistic in their modelling of DSR engagement.
- We examined the National Demand Data for a period of 3 years. This showed Ofgem's assumption of peak at 16:30-19:00 is only true 68% of the time. Around a third of the time, the peak occurs at lunchtime. We feel demand is very unlikely to be shifted from peak when it occurs at lunchtime. This is a key challenge to the benefits of DSR in the model, and will have implications on the benefits inferred through transmission and distribution investment savings.
- We emphasise that the capability exists for offering DSR through the existing NHH infrastructure. Although we recognise BSC's aim of full accuracy in cost allocation, our feeling is the existing offerings are adequate at least until the appropriate HH DUoS tariffs are introduced. Again, it is likely that smaller suppliers will be adversely affected and competition reduced as a result of P272.

Overall we feel the assumption that P272 will drive DSR take-up in Profile Classes 5-8 is overly optimistic. P272 will not drive price signals. Structuring of the market does not incentivise DSR over the medium-term and EMR complicates this. HH DUoS tariffs remain the key barrier to elective HH settlement - mandating P272 does not address this. We suggest Ofgem will not be in a position to gauge whether DUoS developments are on-track when they make their final decision in February 2014. Thus P272 should be rejected. This notwithstanding, concerns remain around a lack of consumer engagement and the relative inelasticity of SME consumer demand for DSR.

Q4: Do you agree with our approach to quantifying the value of load shifting and load reduction, including the assumptions we made? Is there any evidence we have not identified that could inform our analysis?

No. Although we appreciate the difficulties in predicting and quantifying such uncertain events as load shifting and reduction, we feel Ofgem's assumed ranges are overly optimistic. This is based on our experience of current elective HH take-up and examination of the relevant literature. Furthermore we feel consumer engagement in the DSR market may have been overstated. At the very least, the ranges used in the model should be wider to reflect the inherent uncertainties involved.

It is important to note the relationship in the model between DSR take-up and benefits through avoided transmission and distribution investment. This avoided investment comprises a large proportion (roughly a quarter) of the total benefits in the model. Therefore small adjustments to the DSR ranges used have large implications on the final NPV output from the model. Ultimately, we believe the optimism in quantifying DSR take-up is responsible for the model's positive average NPV output. We reiterate the original BSC workgroup's cost-benefit analysis illustrated costs still outweighed benefits because the benefits are largely uncertain. Additionally we stress that Ofgem have excluded potentially significant impacts from the analysis (*see Q2*). Furthermore we have included a table illustrating the potential impacts on the NPV that small changes in the DSR input ranges have. To summarise, we feel that justifying P272 as revenue-neutral on the basis of the modelled NPV outputs is questionable – DSR take-up is inherently uncertain and the modelling ranges used should better reflect this.

	Lower	**Upper**	**NPV output (£m)**
Load reduction			
Original	*12*	*20*	*0.4*
	12	19.9	0.4
	10	20	-0.16
	10	18	-0.74
	5	20	-1.59
	6	10	-4.24
DSR Take-Up			
Original	*20*	*24*	*0.4*
	19	23	-2.59
	18	24	-2.76
	10	24	-15.48

The table above illustrates the impact that changes in the input ranges for Load Reduction and DSR Take-Up have on the model's NPV output. All other factors were held constant when adjusting these range values (we adjusted the median accordingly). We note that reducing the input values by 1% for DSR Take-Up produces a significant negative NPV (in red).

<u>We discuss further challenges to the approach below:</u>

- We disagree that the peak is correctly defined, as three years of National Demand Data shows a lunchtime peak around one third of the time (particularly in summer). We question the likelihood of this lunchtime peak being shifted or

reduced. Additionally, we disagree with the assumption that the load shifted from peak will be spread evenly across the day (*I.A., 2013, para. 1.24, appdx 3*), as this is extremely unlikely.

- Although we recognise Ofgem's attempts at a reasoned, evidence-based approach to quantifying load shifting using the available literature (*I.A., 2013, table 6, appdx 3*), the 2.5% average figure used does not correlate with our experience. This figure is somewhat idealistic, and is symptomatic of the infancy of academic literature on the topic. We feel that 1%, for example, could be towards the upper limit of shifted load from Profile Classes 5-8 at peak.
- We feel the modelling input ranges used reflect this overly-optimistic view of DSR take up. In the absence of more concrete information it is arguable that the range of values used in the model should include a 0% shift in demand. As the table shows, the average NPV produced through the Monte-Carlo analysis is highly sensitive to the DSR input ranges. Although we recognise that the ranges used illustrate uncertainties around load shifting, our view is that they are not realistic and have a significant influence on the overall NPV outcomes in the analysis.
- Further to the point around the idealistic aspects of the literature, we note that the *'technical potential'* for DSR is referenced several times (*I.A., 2013, table 6, appdx 3*). Despite technical potential, we reiterate that there are multiple barriers to DSR engagement (see Q3). We question whether the analysis considers opposing factors equally. Essentially, our view is that the counter-arguments regarding DSR constraints do not have enough consideration nor incorporation into the analysis. At the very least, the modelling ranges should be wider to reflect the inherent uncertainties involved. For example the range used for DSR take-up (20-24%) is incredibly small. We note the source for this range is DECC, nonetheless the numerical assumptions here reflect our overall view that the modelled input ranges are overly optimistic.
- Regarding load reduction specifically (*I.A., 2013, para. 1.30, appdx 3*), there is no referenced evidence base for the justification of a 12-20% range used for reduction from peak load. We question on what basis this could be considered '*conservative*', as this figure has no provenance. Is it likely that 12-20% of peak load from Profile Classes 5-8 is reduced outright? We disagree with Ofgem's approach here, and feel it is a major flaw in the quantitative analysis. We note that using a 10-20% range produces a negative NPV (see table above).
- Further to the above we question why this benefit has been quantified, with no evidence basis, while potentially major costs have not (*see: I.A., 2013, paras. 6.18, 6.21, p36*). This is covered in our response to Q2.

- We disagree with the assumptions used to quantify elective HH take-up in the counterfactual. Basing the counterfactual's increasing HH uptake solely on AMR implementation is somewhat flawed as it both assumes the availability of HH DUoS tariffs and ignores their likely impact on the DSR market (*I.A., 2013, para. 1.11, appdx 3*). We feel existing HH DUoS tariffs are a key barrier to efficient load-shifting and reduction. If the capability for offering DSR exists in future, through AMR meters and HH DUoS tariffs, then competitive pressure would encourage suppliers' DSR offerings. We strongly disagree with mandating HH settlement at this time as it removes customer choice and fails to address the underlying issues inhibiting DSR implementation. Mandating HH settlement will not drive DSR (see Q3).

- We appreciate Ofgem's attempt to quantify further cost savings (in terms of distribution and transmission), (*I.A., 2013, para. 1.16, appdx 3*). However, as

discussed above, the inherent relationship with DSR gives a sense that the benefits case is being somewhat over-stretched.

In terms of evidence that could inform Ofgem's analysis, we would suggest supplier-submitted data through a request for information would give a more accurate and realistic view of the potential for DSR. Overall we stress the inherent uncertainties around load shifting and reduction. These uncertainties should be reflected by using wider ranges within the model.

Q5: For those impacts stemming from suppliers reducing the costs of supplying energy (for example, by promoting DSR) that we did not quantify, do you have any suggestions on how we might do so?

No. We feel these cost savings are misrepresentative, particularly as there are wider impacts to consider (see Q2).

- In response to this, we stress there are many increased costs have not been quantified, including:
    - Carbon Reduction Commitment.
    - NHH agent contract termination.
    - Customer appointed agents – will have a direct cost impact on the customer.
    - Altering existing contracts (lose trust) vs. absorb costs (as NHH prices forecast in advance). This may significantly impact smaller suppliers in particular.
    - Impacts on small suppliers with a NHH-focused business model.

- Although benefits will no doubt exist, equally there are disbenefits to consider – particularly around increased imbalance risk. This will filter through to customers via higher prices, as DSR will precipitate more uncertain behaviour. We argue that the current profiling arrangements may not be ideal, but spread the imbalance risk equally and fairly across the industry. Furthermore we question the need for mandating P272, particularly with the ongoing developments around Smart Implementation. We feel it represents an unnecessary cost burden, some of which will likely be borne by consumers.
- Further to the above, we argue that the availability of NHH ToU tariffs at present caters for the limited consumer appetite for DSR. Although we acknowledge the argument that for consumers there may be greater benefits through HH than NHH DSR (*I.A., 2013, para 4.10*), these need to be considered on balance against the implementation costs and increased imbalance risk. These costs will filter through to the consumer.
- We recognise that HH settlement essentially allocates costs more fairly, however on the flipside it increases the overall risk to individual suppliers from customers' unpredictable behaviour. Specifically, although small suppliers may not have raised imbalance risk as a concern (*I.A., 2013, para 4.1*), their potential insolvency represents a potential cost to the industry as a whole – through mutualisation of costs. Our view is that P272 may reduce competition in the market, as implementing P272 has significant cost implications for suppliers large and small.
- We reiterate that the potential for DSR has been modelled too optimistically and supplier benefits overstated. We question the use of 16:30-19:00 as the peak, when National Demand Data shows that to be the case only 68% of the time.

Q6: Do you agree with our approach to quantifying the value of improved forecasting, including the assumptions we made?

We welcome visibility of Ofgem's methodology in quantifying this impact, and acknowledge the inherent uncertainties in estimating this.

Discussion

Consumers in Profile Classes 5-8 could still benefit from more accurate forecasting following the roll out of AMR meters by April 2014. It should be possible to use this HH data to determine precisely what the EAC and AA will be for these consumers. We therefore see opportunities for consumers to realise the benefit of improved forecasting accuracy without mandating P272. This would also maintain consumer choice.

According to the six-step methodology for quantifying impacts (*I.A., 2013, appdx 3*), supplier hedging strategies have been assessed to derive an upper and lower case of imbalance volume attributable to hedging. Whilst we welcome the acknowledgement that this is a simplification and the best proxy established, we would iterate that uncertainty in estimating forecast improvement comes from the extent to which there is supplier hedging.

In addition to the uncertainty with regard to the extent that supplier's hedge, we challenge whether Ofgem should have used a range around the assumption of HH forecasting error as a percentage of NHH forecasting error rather than just using the workgroup estimate of 60%.

We also note the assumption that the estimated range of the extent of supplier hedging will not change with implementation of P272, when such range has been used to estimate the improved forecasting accuracy if P272 is implicated.

Ofgem have determined the accuracy with which suppliers can currently forecast settlement allocated volumes for HH and NHH consumers resulting in the estimated forecasting accuracy range. We would question the certainty as to whether consumers in Profile Classes 5-8 can be forecast as predictably as existing HH consumers. Equally, we see no evidence as to why Profile Class 5-8 consumers in the current NHH market would be harder to forecast compared to the rest of this market.

Finally, we would welcome clarification if the estimated consumer benefit of improved forecasting accuracy (£10 million over the 20 year modelling period if P272 is implemented) is at NPV. This is not specified in Chapter 4 of the impact assessment document.

Q7: Could the costs of investing in forecasting capability for HH demand impact disproportionately on smaller suppliers or on new entrants?

General comment

We welcome the information that no smaller supplier has raised concerns that P272 would impact them disproportionately (*I.A., 2013, para 4.50*).

Q8: Do you agree that we have correctly identified the cost savings that suppliers could realise in managing the settlement process?

We are of the view that faster settlement could be realised without mandating P272, thus maintaining consumer choice. We question any foreseeable impact of the proposed bulk migration on settlement systems and processes. We also note that mandating P272 would, as a reasonable assumption, move higher-volumes out of NHH settlement and into the lower consuming end of the HH pot. This highlights the requirement for clarity on the performance measures that would be mandated if P272 is approved.

We fully support that firmer reads entering into Settlement at earlier settlement runs are of benefit to the whole industry. Faster settlement can be achieved by increased frequency of meter reads, thus reducing fluctuations between subsequent settlement runs further out. We would therefore challenge attributing benefits of faster settlement to mandating HH settlement through approval of P272.

We welcome clarity on the performance measurement in settlement that implementation of P272 will mandate for larger non-domestic consumers. We note the assumption used to quantify the impact of faster settlement assumes 100% settled at SF if P272 is implemented (*I.A., 2013, table 7, pg. 65*). However, the impact of faster settlement (*I.A., 2013, pg. 31*) notes that P272 will mandate that 99% of energy for sites assigned to Measurement Class E must be settled on actual meter readings at R1. We consider that the performance measures, if P272 is implemented, need to be clarified and quantified accordingly.

Linked to this, we also welcome clarity on the distinction of assigning these consumers to measurement class C or E if P272 is implemented. We strongly support better data quality in the industry and accurate meter readings being used in a timely manner, in agreement with performance assurance measures to protect data integrity. We perceive that the economy of scale assumed – that increasing the HH population will reduce Data Collector costs per MPAN – is not necessarily reflective across the industry. This assumes price reductions for increasing volumes of meters, which will be subject to the commercial contract in place between Supplier and Data Collector. On the other hand, this also means it is reasonable to assume that such arrangements are available without mandating P272.

Finally, due to some sites consuming low levels of energy there is the potential that consumption will not register as current industry arrangements calculate usage to 1 decimal place for HH consumers. It was mentioned in the first proposal of P272 that usage may be calculated to 3 decimal places. We question whether this remains a consideration if P272 is approved?

Q9: Do you agree with our assumption regarding the typical size of data quality teams employed by suppliers?

We agree it is foreseeable to perceive a reduction in the resource requirement for the NHH market but would counter this with an increase in the resource requirement for the HH market

We note that the cost saving arising from better quality data has been quantified in terms of an assumed reduction in the size of data quality teams (*I.A., 2013, para 1.70, appdx 3*).

However, we would counter this with the cost implications of a significant increase in the HH portfolio if P272 is implemented, i.e. a requirement to increase resource resulting from the increase in HH data. We would also note the increased volume of HH data per MPAN when that MPAN is managed HH compared to NHH.

We note in the base case results (*I.A., 2013, table 4, pg. 39*) that an increase of just 0.5% in ongoing costs for suppliers in implementing P272, for example, would erode the £0.4 million NPV benefit to the industry over the 20 year modelling period. We maintain that the justification of P272 as revenue-neutral is a weak justification, particularly given the omission of large costs, and the sensitivity to uncertain events of the model used.

Q10: Do you agree that meters of consumers in Profile Classes 5-8 are mostly read at the end of each month?

Partially agree

For sites that are read monthly, we emphasise that it is not always possible to obtain these readings. Not every reading attempt is successful. Thus reads are not necessarily obtained at the end of the month.

Further to the points raised around AMR meter issues, we remind Ofgem that the remote-read functionality of AMR meters is not always reliable, some times as a result of factors outside the control of the energy supplier.

Q11: Do you agree with our approach to quantifying the costs of P272 for suppliers and DNOs? If not, we encourage respondents to suggest alternative approaches.

No. Although we appreciate the difficulty in obtaining accurate cost estimates to include in the analysis, we feel that costs have been inadequately quantified within the model. This is particularly apparent when contrasted against the optimistic approach to quantifying benefits. We also emphasise the inherent linkages between DSR and savings from avoided investment in distribution and transmission infrastructure. We discuss this in detail in question 2.

Specifically we question the approach to quantifying costs on:

- Carbon Reduction Commitment
- Contracts consumers and suppliers have with NHH agents
- Contracts that are already contracted out past April 2015. This issue could have significant cost implications for suppliers and consumers. It also poses a considerable risk to consumer trust and engagement with the market – especially poignant given the current climate.

Npower's is committed to putting the customer at the heart of all our decisions, and we believe mandating HH settlement for consumers in Profile Classes 5 – 8 is not the right thing to do at this time. We understand that obtaining costs on the above points is a difficult exercise, but their exclusion is not satisfactory in terms of conducting a balanced, fair impact assessment process.

Two *consumer* costs are a key consideration:

- Impacts on customer-appointed agents.
- Impacts through DUoS costs.

These are discussed individually below.

Customer-appointed agents:
At present around 25,000 consumers in Profile Classes 5 – 8 appoint their own agents (*I.A., 2013, para. 6.19, pg. 36*). Not having a view of the costs or the implications is an inherent flaw within the approach to quantifying costs.

Some of these agreements will need to be terminated or new contracts negotiated. We believe the analysis is incomplete without a clear understanding of the costs and implications for customers. Furthermore we emphasise that these costs will be a direct cost to the consumer, given that the agreements are between the consumer and agent. There is a risk of further disengaging customers within the market and further work is certainly required to address the points raised around:
"

- *Whether those customers appoint their own agents for all their meters or only a subset*
- *How many agents appointed by customers would not be qualified to operate in the HH market*
- *The charges associated with termination for affected contracts.*

(*I.A., 2013, para.6.19, pg. 36*)"

The above are important points which require further consideration before a fully informed decision can be made. This is especially important given their potential impact on the cost-benefit analysis.

DUoS costs:

Having appropriate DUoS tariffs in place is key to delivering the projected benefits of P272. There is a risk, if P272 is approved and DUoS developments are not timely, that customers will see an increase in their energy bills due to the existing DUoS costs.

Ofgem's analysis should take into account the impacts on consumers were only the existing DUoS tariffs to remain.

Q12: We welcome evidence from smaller suppliers of larger non-domestic consumers on the costs they could incur if P272 is implemented.

In relation to this question Npower wish to highlight the potential impacts of not having appropriate DUoS tariffs in place when suppliers commence the Change of Measurement Class process. Unless more reflective DUoS tariffs are available as they begin transferring Profile Class 5-8 customers from NHH to HH settlement, these customers will be charged for transmission based on the existing HH DUoS tariffs – which were designed for large scale HH customers. The cost implications here are significant, and suppliers have two options. They will either pass them onto the customer, greatly reducing the predicted benefits Ofgem have modelled; or suppliers would absorb them, which would have a greater impact on smaller suppliers and could act as a barrier to competition. This illustrates the inherent flaws with using an implementation deadline – and we stress a phased implementation is more suitable.

All appropriate charging structures must be in place prior to mandating HH settlement for customers in Profile Classes 5-8.

Q13: We welcome information from suppliers on (1) how many consumers would need to move electively for them to incur upfront costs and (2) the costs that would be incurred, broken down by the cost categories listed in this chapter.

We are unable to provide specific figures at this time, however we believe the major barrier to the elective half hourly market is the existing DUoS tariffs arrangement. We would not expect to see up take in elective half hourly increase until these are addressed. However, given the availability of more appropriate HH DUoS tariffs, we would anticipate an increase in elective HH take-up, and would expect to incur up front costs at that point.

Q14: Would consumers incur costs from termination of contracts with Supplier Agents? If so, we welcome information that could help us to assess these costs.

Npower's view is that those consumers who directly contract with NHH Agents would likely incur costs should their contracts have to be terminated early. This impact may be reduced should the consumer contract with a business that also operates a HH Agent and could transfer them across. We stress this cost would be borne directly by the consumer. Where the NHH Agent the consumer contracts with does not have a HH Agent business, customers are likely to face costs. We suggest these could possibly be, at a minimum, equivalent to the charges relating to the unexpired period of the contract.

Npower suggest Ofgem should engage with consumers to identify how much of an issue this would be. The Impact Assessment analysis shows around 25,000 consumers directly contract with their agents at present, which is a significant proportion of the Profile Class 5-8 market. Any costs that these consumers incur from the early termination of existing contracts and sourcing of new HH Agents would be borne directly by these consumers. We suggest these costs would be significant, and thus represent an important oversight in Ofgem's cost-benefit analysis.

We would also welcome a view from Ofgem as to how these consumers would be informed about the necessary changes they would need to make, and what would happen should the consumer refuse to take action due to the costs they may incur. There are real material impacts on consumer trust and engagement to be considered if P272 is approved as is. This is a good example of how a phased approach would be of greater benefit.

Q15: Do you have any comments on the results of our quantitative analysis?

As discussed in the previous questions, we feel the cost-benefit analysis is lacking in a number of areas. In particular we feel significant costs have not been quantified, while the benefits have been overstated. The cost-benefit analysis does not illustrate a clear benefit to the industry or consumers. We also reiterate that in more than 50% of cases the model produced a negative NPV for implementing P272 (*I.A., 2013, para. 7.*5).

The cost-benefit case does not clearly illustrate the consumer would gain from mandated HH settlement. In the majority of cases, costs would outweigh benefits (*I.A., 2013, para. 7.*5). We reiterate the original BSC workgroup's finding that this isn't a commercially viable option. Until there is a sufficient and supportive market environment to facilitate HH settlement, we propose P272 should not be approved.

Ofgem acknowledge that certain areas were excluded from the cost analysis, such as CRC and NHH Agent Relationships. We feel these are large and important costs to consider. In the interests of a fair and balanced impact assessment, we suggest these cost impacts necessitate consideration and quantification. The results of the quantitative analysis do not give a true representation of the potential impacts of P272 due to the Impact Assessment's shortcomings.

We suggest Ofgem have failed to properly engage the customer. The survey we commissioned found that 63% of customers stated that they would not change the way in which they consumed their energy (*Verve SME Insight Group, 2013)*. On this basis we question whether the assumptions around DSR take-up used within the quantitative analysis are a fair reflection of customer engagement. Question 3 discusses this in more detail. We feel price signals and the market's structuration are not conducive to the levels of DSR engagement Ofgem have used in their quantitative analysis. We feel Ofgem could do more to engage the customer in relation to forecasting DSR take-up. As a minimum, wider ranges should have been used within the model. Question 4 discusses the sensitivity of Ofgem's benefits case to assumptions around DSR take-up. We remind Ofgem of the multitude of barriers that exist in realising efficient DSR – discussed in Question 3.

Q16: If P272 is approved, would it be possible to implement the modification in less than fourteen months?

No. We consider it paramount that the supporting infrastructure (such as DUoS tariffs and CoMC process, for example) is developed, agreed and in place before a decision on P272 can be made.

Implementing P272 would see 155,568 consumers (*I.A., 2013, table 1, pg.1*) subjected to the CoMC process by 1st April 2015. Between Ofgem's stated decision date (14th Feb 2014), and P272's implementation date, this would require roughly 531 meters per working day to go through the CoMC process. The CoMC process, as it stands, is not robust enough to accommodate such volumes. Further, a view from ELEXON is that in certain circumstances the CoMC process is unworkable and requires change. These changes would also need to be developed and implemented prior to suppliers commencing the required CoMCs.

In addition, the step change in portfolio size for HH Agents may mean they would need to enhance their systems and, in some cases, re-qualify their business under the BSC, a process that takes around three months as a minimum. Ultimately we feel that a fourteen month implementation window is too narrow, as there are still a number of key processes that would need work following a decision on P272. Npower would consider these vital, not only to the success of P272 but also the ability of P272 to be implemented at all. Ofgem note that a fourteen month implementation window is the result of the BSC's workgroup. However, we would emphasise that this would only be possible if all other necessary changes had been implemented. This would allow suppliers fourteen months to manage the transition of customers.

We also welcome clarity on the interaction of P272, if implemented, with the current open letter consultation of the Smart Metering Implementation Programme on the roll out of smart meters (DECC, October 2013, ref 13D/267). Our concern is with regard to the replacement of Advanced meters after 2020. The SMIP letter states, with the exception of CT or larger gas meters, that the replacement meter when due must be Smart. HH settlement as would be mandated by P272 requires meters to be either CoP5 or CoP10 compliant, which is satisfied by Advanced meters but not SMETS Smart meters under current arrangements. Of relevance to P272, we are concerned of a potential clash in licence condition and will respond accordingly to the open letter (we foresee this will add complexity and cost to the market unless Advanced meters can endure in replacement post 2020).

We would be supportive of another Modification which addressed the significant issues we have highlighted. In particular we feel a phased implementation would be the best solution for customers.

Referenced documents:

- (I.A., 2013). *Balancing and Settlement Code Modification Proposal 272 – Draft Impact Assessment.* Ofgem. Published: 29th October 2013.

- (RMR I.A., 2013). *The Retail Market Review – Impact Assessment for the final non-domestic proposals.* Ofgem. Published: 22nd March 2013.

- (Verve SME Insight Group, 2013). Verve: Quantitative Survey – SMEs' willingness to alter opening hours and energy usage. Commissioned on behalf of Npower, December 2013.